UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
KARDOS, NEIL R

ART UNIT	PAPER NUMBER
3623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)
Office Action Summary		10/699,265	HANSEN ET AL.
		Examiner	Art Unit
		Neil R. Kardos	3623
-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --			

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _10 November 2008_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-18 and 21-32_ is/are pending in the application.

    4a) Of the above claim(s) _31 and 32_ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-18 and 21-30_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☒ Claim(s) _31 and 32_ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This is a **FINAL** Office Action on the merits in response to communications filed on

November 10, 2008. Claims 1, 9, and 13 have been amended. Claims 19-20 have been

cancelled. Claims 31-32 have been added, but have been withdrawn by the Examiner for being

directed to a non-elected invention. Currently, claims 1-18 and 21-30 are pending and have been

examined.

Response to Arguments

Applicant's arguments filed on November 10, 2008 have been fully considered but they

are not persuasive. Applicant argues the following:

(A)   Gupta's product descriptions don't include "availability expressions" which

        include operators and at least one operand. (see Remarks, page 9).

(B)   Gupta's framework does not include engineering requirements or manufacturing

        availability. (see Remarks, page 9).

(C)   Gupta's product definitions are provided in plain English, and they simply

        indicate the availability of certain product features. (see Remarks, page 9).

(D)   Claims 1-30 constitute statutory subject matter. (see Remarks, pages 10-11).

Regarding arguments (A) and (C), Examiner is unable to find claim language or

limitations that correspond to Applicant's arguments. The claims do not recite "availability

expressions." Rather, claim 1 recites "applicability expressions"; however, the claimed

applicability expressions are not clamed so that they include "operators and at least one

operand." Further, it is unclear what claim limitation argument (C) refers to, as there is nothing
in the claims that would appear to prohibit definitions provided in plain English.

     Regarding argument (B), Examiner respectfully disagrees. Gupta discloses a product
definition that includes an identification of the components and their interrelationships (i.e.
engineering requirements). (see column 5: lines 23-25). There are four relationships between
parts (i.e. engineering requirements): "requires choice, includes, can't work with (or excluded)
and removes). (see column 6: lines 27-31). Gupta also discloses that the invention can identify
the products that are still available (i.e. manufacturing availability) based on the options that
have been selected. (see column 5: lines 39-41). Thus, Gupta discloses a product definition that
includes both engineering requirements and manufacturing availability. (see also column 1: lines
21-24, disclosing valid configurations and availabilities; column 1: lines 65-67; column 2: lines
6-39; column 7: lines 26-49).

     Regarding argument (D), Examiner respectfully disagrees. Applicant has apparently
relied on the "useful, concrete, and tangible result" inquiry set forth in *State Street Bank & Trust
Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998). However, the decision
in *State Street* was overturned by the Federal Circuit in *In re Bilski*, 545 F.3d 943 (Fed. Cir.
2008). In *Bilski*, the Federal Circuit "conclude[d] that the 'useful, concrete and tangible result'
inquiry is inadequate and reaffirm[ed] that the machine-or-transformation test outlined by the
Supreme Court is the proper test to apply." *Bilski*, 545 F.3d at 959-60. In the previous Office
Action, Examiner cited four cases (*Benson, Flook, Diehr,* and *Deener*) that are the basis for the

machine-or-transformation test set forth by the Supreme Court and reaffirmed by the Federal

Circuit in *Bilski*. The Federal Circuit states that "the machine-or-transformation test...is the

governing test for determining patent eligibility of a process under § 101." *Bilski*, 545 F.3d at

956.

As explained in the previous Office Action, the present claims fail the machine-or-

transformation test and are therefore unpatentable. The rejection under § 101 has been

maintained below.

Response to Amendment

Applicant's amendments to the specification have been entered and are sufficient to

overcome the objections to the drawings under 37 C.F.R. 1.84(p)(5) set forth in paragraph 3 of

the previous Office Action.

Applicant's cancellation of claim 20 renders moot the rejection under § 112 set forth in

paragraph 5 of the previous Office Action. Accordingly, this rejection has been withdrawn.

Election/Restrictions

Newly submitted claims 31 and 32 are directed to an invention that is independent

or distinct from the invention originally claimed for the following reasons:

The originally filed invention (pending claims 1-18 and 21-30) and the newly filed

invention (claims 31-32) are related as subcombinations disclosed as usable together in a single

combination. The subcombinations are distinct if they do not overlap in scope and are not

obvious variants, and if it is shown that at least one subcombination is separately usable. In the

instant case, the newly filed subcombination (claims 21-23) has separate utility such as

generating component definition expressions including a range of products, a mathematical

operator, and a range of available configurations, as well as generating product definition

expressions including the component definition expressions, a mathematical operator, and a

specific configuration. See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together. Where

applicant elects a subcombination and claims thereto are subsequently found allowable, any

claim(s) depending from or otherwise requiring all the limitations of the allowable

subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP

§ 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional

application is anticipated by, or includes all the limitations of, a claim that is allowable in the

present application, such claim may be subject to provisional statutory and/or nonstatutory

double patenting rejections over the claims of the instant application.

Restriction for examination purposes as indicated is proper because all these inventions

listed in this action are independent or distinct for the reasons given above <u>and</u> there would be a

serious search and examination burden if restriction were not required because one or more of

the following reasons apply:

(a) the inventions have acquired a separate status in the art in view of their different

classification;

(b) the inventions have acquired a separate status in the art due to their recognized

divergent subject matter;

     (c) the inventions require a different field of search (for example, searching different

          classes/subclasses or electronic resources, or employing different search queries);

     (d) the prior art applicable to one invention would not likely be applicable to another

          invention;

     (e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101

          and/or 35 U.S.C. 112, first paragraph.

Should applicant traverse on the ground that the inventions are not patentably distinct,

applicant should submit evidence or identify such evidence now of record showing the

inventions to be obvious variants or clearly admit on the record that this is the case. In either

instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence

or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Since applicant has received an action on the merits for the originally presented

invention, this invention has been constructively elected by original presentation for prosecution

on the merits. Accordingly, claims 31-32 are withdrawn from consideration as being directed to

a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
requirements of this title.

Claims 1-18 and 21-30 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

Claims 1 and 21: Claims 1 and 21 are directed toward the statutory category of a process.

In order for a claimed process to be patentable subject matter under 35 U.S.C. § 101, it must

either: (1) be tied to a particular machine, or (2) transform a particular article to a different state

or thing. *See In Re Bilski*, 545 F.3d 943, 956 (Fed. Cir. 2008); *Diamond v. Diehr*, 450 U.S. 175,

184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63,

70 (1972). If neither of these requirements is met by the claim, the method/process is not

patentable subject matter under § 101. Thus, to qualify as a statutory process under § 101, the

claim should <u>positively recite</u> the machine to which it is tied (e.g. by identifying the apparatus

that accomplishes the method steps), or positively recite the subject matter that is being

transformed (e.g. by identifying the material that is being changed to a different state). Nominal

recitations of structure in an otherwise ineligible method fail to make the method a statutory

process. *See Bilski*, 545 F.3d at 957; *Benson*, 409 U.S. at 71-72. Thus, incidental physical

limitations such as insignificant extra-solution activity and field of use limitations are not

sufficient to convert an otherwise ineligible process into a statutory one.

Here, the claimed process fails to meet the above requirements for patentability under §

101 because it is not tied to a particular machine and does not transform underlying subject

matter.

Claims 2-18 and 22-30: Dependent claims 2-18 and 21-30 are rejected for failing to

remedy the deficiencies of the claims from which they depend.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, and 6-13 are rejected under 35 U.S.C. 102(b) as being anticipated by

Gupta et al. (US 6,405,308).

Claim 1: Gupta, as shown, discloses a method for creating a product definition,

comprising:

- *instancing one or more usage-based product definition inputs* (see at least abstract: "The

  invention provides the ability to interactively select and configure a product");

- *assessing at least one applicability expression including at least one of an engineering*

  requirement and a manufacturing availability associated with at least some of the usage-

  based product definition inputs (see at least abstract: "The invention provides the ability*

  to interactively select and configure a product among a set of related products based on

  availability and compatibility of features and options."); and

- *generating the product definition based at least one assessed applicability expressions*

  (see at least abstract: "The invention provides the ability to interactively select and

  configure a product among a set of related products based on availability and

  compatibility of features and options.").

Claim 2: Gupta discloses all the limitations of claim 1 as shown above. Furthermore,
Gupta, as shown, discloses the following limitations:

- *wherein instancing one or more usage-based product definition inputs includes instancing a part* (see at least column 1, lines 19-22: "Before a system can be built the components of the system must be identified. To configure a system, a user must select the parts to include in the system.").

Claim 3: Gupta discloses all the limitations of claim 1 as shown above. Furthermore,
Gupta, as shown, discloses the following limitations:

- *wherein instancing one or more usage-based product definition inputs includes instancing a requirement* (see at least column 2, lines 2-5: " The invention provides the ability to interactively select and configure a product among a set of related products based on availability and compatibility of features and options.").

Claim 6: Gupta discloses all the limitations of claim 1 as shown above. Furthermore,
Gupta, as shown, discloses the following limitations:

- *wherein instancing one or more usage-based product definition inputs includes instancing a predetermined component based on a product class configuration rule* (see at least Fig 4 and column 2, lines 9-13: "Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration).").

Claim 7: Gupta discloses all the limitations of claim 6 as shown above. Furthermore,
Gupta, as shown, discloses the following limitations:

- *wherein the instancing a predetermined component based on a product class configuration rule includes instancing a predetermined component based on a mandatory configuration rule* (see at least Fig 4 and column 2, lines 9-13: "Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration).".

Claim 8: Gupta discloses all the limitations of claim 6 as shown above. Furthermore,
Gupta, as shown, discloses the following limitations:

- *wherein the instancing a predetermined component based on a product class configuration rule includes instancing a predetermined component based on a configuration default rule* (see at least Fig 4 and column 2, lines 9-13: "Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration).").

Claim 9: Gupta discloses all the limitations of claim 1 as shown above. Furthermore,
Gupta, as shown, discloses the following limitations:

- *wherein assessing an applicability expression includes assessing an option expression* (see at least Fig 4 and column 2, lines 9-13: "Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration).").

Claim 10: Gupta discloses all the limitations of claim 9 as shown above. Furthermore, Gupta, as shown, discloses the following limitations:

- *wherein assessing an option expression includes assessing at least one of a default option expression, an available option expression, and a not available option expression* (see at least Fig 4 and column 2, lines 9-13: "Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration).").

Claim 11: Gupta discloses all the limitations of claim 9 as shown above. Furthermore, Gupta, as shown, discloses the following limitations:

- *wherein assessing an option expression includes assessing an option from an option category associated to a product* (see at least Fig 4 and column 2, lines 9-13: "Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve

a valid configuration), optional (parts that can be optionally included in the configuration).").

Claim 12: Gupta discloses all the limitations of claim 9 as shown above. Furthermore, Gupta, as shown, discloses the following limitations:

- *wherein assessing an option expression includes assessing at least one of a mandatory option or a mutually exclusive option* (see at least Fig 4 and column 2, lines 9-13: "Parts in a product definition are related or classified as: included (parts that are included by default), required choices (a choice among a group of parts that must be made to achieve a valid configuration), optional (parts that can be optionally included in the configuration).").

Claim 13: Gupta discloses all the limitations of claim 1 as shown above. Furthermore, Gupta, as shown, discloses the following limitations:

- *wherein assessing an applicability expression includes assessing a configuration rule, the configuration rule being adapted to at least one of validate a configuration specification and populate a configuration specification* (see at least abstract: "A configuration system validates a configuration using the system definition, the current state of the configuration and user input.").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 4, 5, 14-18, and 21-30 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Gupta.

Claim 4: Gupta discloses all the limitations of claim 1 as shown above. Gupta does not

disclose the following limitations:

- *wherein instancing one or more usage-based product definition inputs includes*
  transforming a coordinate system of a part from a part-centered coordinate system to a
  product-centered coordinate system.

Official Notice is taken that it is old and well known in the design arts (*e.g.*, AutoCAD)

that a coordinate system of a designed part is converted to the coordinate system of a designed

system/product when the part is included in a product or system. It would have been obvious to

one or ordinary skill in the art at the time of the invention to introduce coordinate transformation

when configuring a system from parts, as done by Gupta, in order to simplify the design and

presentation of a part when presented as part of a product.

Claim 5: Gupta discloses all the limitations of claim 1 as shown above. Gupta does not

disclose the following limitations:

- *wherein instancing one or more usage-based product definition inputs includes instancing a sub-component having a first configuration, and instancing the sub-component a second time having a second.*

Official Notice is taken that it is old and well known in the design arts (e.g., AuoCAD) that selected similar parts can be configured in numerous ways by specifying product parameters. For example, it is old and well known in aviation that airplane seats are configured differently between coach and first class. It would have been obvious to one or ordinary skill in the art at the time of the invention to allow for instancing a sub-component, as done by Gupta, multiple times, each with a different configuration, as doing so allows for design choices that meet a customer's needs.

Claims 14 and 15: Claim 14: Gupta discloses all the limitations of claim 1 as shown above. Gupta does not disclose the following limitations:

- *wherein instancing one or more usage-based product definition inputs includes instancing a public instance representation of a lower level product by a higher level product.*

Claim 15: Gupta discloses all the limitations of claim 14 as shown above. Gupta does not disclose the following limitations:

- *wherein instancing a public instance representation of a lower level product by a higher level product includes filtering the public instance representation through the instance of the higher-level product.*

In light of the specification and ordinary skill in the art of object-oriented programming and design (OOP/D), claims 14 and 15 appear to recite the well known operation of inheritance in an object class hierarchy, namely, that object creation ("instancing of a representation") of a child class necessarily creates an instance of the parent class ("instancing of a public class"), and that creating an instance of the child parent necessarily applies the object creation rules of the parent (i.e. the so called "filtering" of the public instance representation).

Official Notice is taken that such OOP/D concepts and operations are old and well known to those of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art to use such operations and concepts as are found in OOP/D in the implementation of Gupta, the parts representations and relationships represented in an object class hierarchy, thus necessarily including the operations as recited, as this would have provided a well known programming methodology to a design methodology which closely matches the inherent nature of object-oriented programming.

Claim 16: Gupta discloses all the limitations of claim 1 as shown above. Gupta does not disclose the following limitations:

- *wherein instancing one or more usage-based product definition inputs includes instancing in accordance with a configuration at location option by a customer.*

Official Notice is taken that it is old and well known in the design arts to custom design/configure certain products per a customer's specification. Furthermore, it is old and well known to do so based on the product's intended location. Multiple products are designed to meet a customer's spatial needs. For example, it is old and well known in aviation that airplane seats

are configured differently between coach and first class. It would have been obvious to one or

ordinary skill in the art at the time of the invention to allow for configuring a product, as done by

Gupta, by taking into account a customer's location needs as doing so increases the odds of

selling a product and guaranteeing customer satisfaction and repeat business.

     Claims 17 and 18: Claim 17: Gupta discloses all the limitations of claim 1 as shown

above. Gupta does not disclose the following limitations:

- *wherein at least one of instancing one or more usage-based product definition inputs*
  includes instancing in accordance with a unitized manufacturing assembly plan.

     Claim 18: Gupta discloses all the limitations of claim 1 as shown above.

Gupta does not disclose the following limitations:

- *wherein assessing at least one of an applicability expression, an engineering*
  requirement, and a manufacturing availability expression includes assessing in
  accordance with a unitized manufacturing assembly plan.

     Official notice is taken that it is old and well known in the art of design and

manufacturing to select and design a product with accordance with a manufacturing assembly

plan. For example, Design for Manufacturability (DFM) and Design for Assembly (DFA)

ensure that system design meet feasible manufacturability requirements. It would have been

obvious for one of ordinary skill in the art at the time of the invention to implement DFM and

DFA practices with the design and system configuration of Gupta, as doing so ensures that

product design meets feasible manufacturability requirements for each part and/or component in

the design. In addition, implementing DFM and DFA practices has the added benefit of reducing

the assembly time and assembly costs.

Claim 21: Gupta, as shown, discloses the following limitations:

A method for creating an air vehicle definition, comprising:

- *instancing a usage-based [fuselage] definition input* (see at least abstract: "The invention
  provides the ability to interactively select and configure a product"), *the usage-based
  fuselage definition input including at least one of a fore body definition input, a mid body
  definition input, an aft body definition input, a wing definition input, a vertical tail
  definition input, and a horizontal tail definition input;*

- *instancing a usage-based [propulsion system] definition input* (see at least abstract: "The
  invention provides the ability to interactively select and configure a product");

- *assessing at least one of an applicability expression, an engineering requirement, and a
  manufacturing availability expression associated with at least some of the definition
  inputs* (see at least abstract: "The invention provides the ability to interactively select and
  configure a product among a set of related products based on availability and
  compatibility of features and options."); *and*

- *generating the [air vehicle] definition based on at least some of the definition inputs,
  applicability expressions, engineering requirements, and manufacturing availabilities*
  (see at least abstract: "The invention provides the ability to interactively select and
  configure a product among a set of related products based on availability and
  compatibility of features and options.").

Gupta, does not disclose the following limitations:

- *a usage-based fuselage, ... the usage-based fuselage definition input including at least one of a fore body definition input, a mid body definition input, an aft body definition input, a wing definition input, a vertical tail definition input, and a horizontal tail definition input;*

- *a usage-based propulsion system*

Gupta, as shown teaches selecting and configuring a product based on availability and compatibility of features and options. The recitation of fuselage (and its components) and propulsion systems are intended use and the method steps do not depend on any actual data/inputs/rules used; hence the applicability of the method to an air vehicle definition is not given any patentable weight. Per Gupta, column 5, lines 46-48: "Examples of systems that can be maintained or configured using the invention include automobiles, computers, time clock machines, and shoes." It would have been obvious to one of ordinary skill in the art at the time of the invention to extend the method of Gupta to define airplanes, helicopters, trains, and other tailored products as all are known to have customizable features that depend on a customer's needs and preferences.

The above rational applies to the rejection of claims 22-30, which depend on claim 21.

Claim 22: Refer to rejection of claim 4 above.

Claim 23: Refer to rejection of claim 6 above.

<u>Claim 24</u>: Refer to rejection of claim 7 above.

<u>Claim 25</u>: Refer to rejection of claim 8 above.

<u>Claim 26</u>: Refer to rejection of claim 10 above.

<u>Claim 27</u>: Refer to rejection of claim 13 above.

<u>Claim 28</u>: Refer to rejection of claim 14 above.

<u>Claim 29</u>: Refer to rejection of claim 15 above.

<u>Claim 30</u>: Refer to rejection of claims 17-18 above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Neil R. Kardos whose telephone number is (571) 270-3443. The

examiner can normally be reached on Monday through Friday from 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Neil R. Kardos
Examiner
Art Unit 3623

NRK
2/18/09
/Jonathan G. Sterrett/
Primary Examiner, Art Unit 3623